

Remarks

This application has been reviewed in light of the Office Action of September 10, 2003. Claims 1-17 are pending, and all claims stand rejected. In response, claims 10, 12, and 17 are amended; new claims 18-21 are added; claim 16 is canceled, without prejudice; and the following remarks are submitted. Reconsideration of this application, as amended, is requested.

Claims 1-7, 9, 10, 12-13, and 16 are rejected under 35 USC 103 over Beery US Patent 3,654,816 in view of Devenyi US Patent 5,636,549. Claim 16 has been canceled. Applicant traverses this ground of rejection as applied to the other rejected claims.

Beery does not deal with a leadscrew device. Beery contrasts his approach with a bidirectional leadscrew, which is driven by a reversible motor. See col. 1, lines 20-28. Beery teaches that his device uses a unidirectionally driven screw, see col. 1, lines 41-44. Beery teaches a pressure-maintaining device for a document stack in a document feeder (col. 3, line 55-col. 4, line 30), than achieves bidirectional movement with one direction being driven by a unidirectional motor and the other direction being achieved by disengaging the screw from the driven assembly and manually moving the document feeder on the ratcheting mechanism. The engagement is between a helically coiled spring 10 (Figs. 2-3; col. 2, lines 21-69) mounted in a rotatable housing 12, and an asymmetric-profile screw 16 (col. 3, lines 20-40; Figures 2, 4). The rotatable housing is required for the helically coiled spring to function (col. 2, lines 39-45).

Devenyi teaches a wire wound leadscrew with a symmetric-thread wire thread.

MPEP 2143.01 provides that, in constructing a sec. 103 rejection, the proposed modification cannot render the prior art unsatisfactory for its intended purpose or change the principle of operation of a reference. MPEP 2143.02 requires that, in combining the teachings of two references, there must be a reasonable expectation of success in the combination. Both of these mandates would be violated in the proposed approach of substituting the wire-wound leadscrew of Devenyi for the asymmetric-

thread-profile screw of Beery. Beery requires that the thread profile of the screw 16 be asymmetric so that the "...spring member 10 and housing 12 is slidable or ratchetable in one direction along the screw while being substantially resistant to movement in the other direction." (col. 3, lines 21-24) Using the round-shape wire-wound leadscrew of Devenyi would render the approach of Beery inoperable as thus described. There would consequently be no expectation of success for the document-feeding device of Beery to function as described in Beery, if the wire-wound leadscrew of Devenyi were used in place of Beery's asymmetric-thread screw.

One cannot discount the requirement of the asymmetric-profile screw in Beery, as this is one of the central teachings of Beery to achieve one of the objects of the invention "...to provide a screw engagement device in combination with a particular type of screw in which the engaged device is ratchetable in one direction along the screw" (col. 1, lines 58-62) and implemented "In accordance with a further aspect of the invention..." (col. 3, lines 20-25). The selective use of only the helpful teachings of a reference, and not giving weight to the overall teachings of the reference, in this manner is a per se hindsight reconstruction. Such an approach is not proper. In In re Mercer, 185 USPQ 774, 778 (CCPA 1975), the CCPA stated:

"The relevant portions of a reference include not only those teachings which would suggest particular aspects of an invention to one having ordinary skill in the art, but also those teachings which would lead such a person away from the claimed invention. See In re Lunsford, 53 CCPA 986, 357 F.2d 380, 148 USPQ 716 (1966)."

"The Board's approach amounts in substance, to nothing more than a hindsight 'reconstruction' of the claimed invention by relying on isolated teachings of the prior art without considering the over-all context within which those teachings are presented. Without the benefit of appellant's disclosure, a person having ordinary skill in the art would not know what portions of the disclosure of the reference to consider and what portions to disregard as irrelevant, or misleading. See In re

Wesslau, 53 CCPA 746, 353 F.2d 238, 147 USPQ 391 (1965)."

If the rejection is maintained, it is necessary to support why Beery's central teaching of the asymmetric-profile leadscrew was not incorporated into the explanation of the rejection, and explain why a different leadscrew which would be inoperable in Beery's device was selected.

Applicant has demonstrated above that the references are not technically compatible. The case authority and the MPEP provide guidance on the legal issue.

The present rejection seeks to perform a hindsight reconstruction based upon unrelated references, which is technically unsupported and is legally improper.

The case authority and the MPEP provide guidance on this point. The present rejection is a sec. 103 combination rejection. It is well established that a proper sec. 103 combination rejection requires more than just finding in the references the elements recited in the claim (but which was not done here). To reach a proper teaching of an article or process through a combination of references, there must be stated an objective motivation to combine the teachings of the references, not a hindsight rationalization in light of the disclosure of the specification being examined. MPEP 2143 and 2143.01. See also, for example, In re Fine, 5 USPQ2d 1596, 1598 (at headnote 1) (Fed.Cir. 1988), In re Laskowski, 10 USPQ2d 1397, 1398 (Fed.Cir. 1989), W.L. Gore & Associates v. Garlock, Inc., 220 USPQ 303, 311-313 (Fed. Cir., 1983), and Ex parte Levengood, 28 USPQ2d 1300 (Board of Appeals and Interferences, 1993); Ex parte Chicago Rawhide Manufacturing Co., 223 USPQ 351 (Board of Appeals 1984). As stated in In re Fine at 5 USPQ2d 1598:

"The PTO has the burden under section 103 to establish a prima facie case of obviousness. [citation omitted] It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references."

And, at 5 USPQ2d 1600:

"One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."

Following this authority, the MPEP states that the examiner must provide such an objective basis for combining the teachings of the applied prior art. In constructing such rejections, MPEP 2143.01 provides specific instructions as to what must be shown in order to extract specific teachings from the individual references:

"Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention when there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992)."

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"The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)."

* * * * *

"A statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. Ex parte Levengood, 28 USPQ2d 1300

(Bd.Pat.App.& Inter. 1993)."

Here, there is set forth no objective basis for combining the teachings of the references in the manner used by this rejection, and selecting the helpful portions from each reference while ignoring the unhelpful portions. An objective basis is one set forth in the art or which can be established by a declaration, not one that can be developed in light of the present disclosure. The rationale urged in the explanation of the rejection, "to form a hard, smooth thread", is not persuasive in view of the fact that the proposed substitution would render Beery inoperable, and having a hard, smooth thread won't overcome the inoperability. Certainly to make a substitution leading to inoperability is not a desirable combination. If the rejection is maintained, Applicant asks that the Examiner set forth the objective basis found in the references themselves for combining the teachings of the references.

Each of claims 10 and 12-13 recites in part:

"a linear slide mechanism to which the drive nut housing is
affixed so that the drive nut housing does not rotate"

Beery has no such teaching. In fact, Beery specifically requires that the sectional housing 12 rotate about the screw (col. 2, lines 38-42).

Applicant asks that the Examiner reconsider and withdraw this ground of rejection.

Claims 8 and 14 are rejected under 35 USC 103 over Beery in view of Devenyi '549 and further in view of Devenyi US Patent 5,533,417. Applicant traverses this ground of rejection.

Beery teaches that his device is constructed as two annular bearing sections 30 that sandwich the spring retaining sections 28 between them. The stack is held together by axially extending fasteners 36. See. col. 3, lines 9-13 and Fig. 4 of Beery.

Claims 8 and 14 each recite in part:

"the drive nut housing has an access opening therethrough, through which the spring pin is accessible from an exterior of the drive nut housing and providing clearance for the spring pin"

The rationale of the explanation of the rejection for placing an access opening into Beery is that "an access opening ...allows for assembly of internal components that is easier..." Applicant must respectfully disagree. Beery describes a different way of assembly of the internal components. The spring 10 is assembled into the spring retaining sections 28, and then the spring retaining sections 28 are sandwiched between the bearing sections 30 and fastened into place with the fasteners 36. There is no reason to change this disclosed approach of Beery. Placing an access opening into the spring retaining sections 28 would not make assembly any easier. If some of the teachings of Devenyi are to be used, then they should all be used so that the spring 10 of Beery is replaced by the bearing structures 16 and 18 of Devenyi as well. Devenyi provides the access opening so that this bearing structure as seen in Figure 3 can be assembled, so that this teaching must be incorporated as well if the access opening teaching is used-- that's why there is an access opening.

Applicant asks that the Examiner reconsider and withdraw this ground of rejection.

Claims 11 and 17 are rejected under 35 USC 103 over Beery in view of Devenyi '549, and further in view of Pan US patent 6,459,844. Applicant traverses this ground of rejection.

Claims 11 and 17 each recite in part:

"an optical filter supported on the linear slide mechanism, the optical filter being movable by a rotation of the leadscrew"

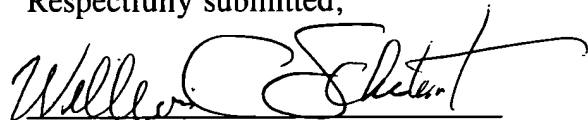
Pan teaches a leadscrew structure that achieves bidirectional movement of a filter 12.

If one attached an optical filter to the biasing member 52 of Beery, there would be several practical problems. First, the optical filter would be driven only in one direction (i.e., toward the feed roller 58) by the motor 64, contrary to the teachings of Pan. Second, to move the optical filter in the other direction (away from the feed roller 58), it would be necessary to manually disengage the spring member 10 from the screw 16 by rotating the biasing member 52 to the disengaged position as in Figure 1 of Beery, and then manually move the biasing member 52 and the optical filter away from the feed roller 58 in that position. Third, the optical filter would not be operable in the desired manner described by Pan when it and the biasing member 52 were moved away from the feed roller 58 in this rotated, manual manner. Fourth, to re-engage the spring 10 to the screw 16 and render the optical filter operable in the manner described in Pan, it would be necessary to manually rotate the biasing member 52 to the position shown in Figure 3 of Beery. Fifth, the positioning of the optical filter would be less accurate than in Pan, because of the manual repositioning each time a reversal in movement was accomplished. It is really difficult to imagine that "one of ordinary skill" would have made this substitution.

Applicant asks that the Examiner reconsider and withdraw this ground of rejection.

Applicant submits that the application is now in condition for allowance, and requests such allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "William Schubert", written over a horizontal line.

William Schubert

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